

REMARKS

The Applicant has filed the present Response in reply to the outstanding Official Action of February 18, 2005, and the Applicant believes the Response to be fully responsive to the Official Action for the reasons set forth below in greater detail.

At the onset, we would like to note that the Examiner has indicated that Claims 25-27 have allowable subject matter and would be allowed if rewritten in independent form, including all of the limitations of the rejected base claim and any intervening claims.

Additionally, the Applicant would like to note that Claims 1, 2, and 11 have been amended herewith. Specifically, Claim 1 has been amended to incorporate all of the limitations of Claim 5 and one of the limitations from Claim 2. Claim 11 has been amended to clarify the main counter as being a “single main counter.” The subject matter of Claim 2 that was incorporated into Claim 1 has been deleted from Claim 2. Additionally, Claim 9 has been amended to depend from Claim 1. This amendment obviates the Examiner’s § 102(e) rejection of Claims 9-10. Furthermore, Claim 21 has been amended to correspond with the apparatus claims.

Lastly, the Applicant would like to note that Claims 28-32 have been added to the application. Applicant respectfully submits these new claims for examination. Independent Claim 28 is directed to a mobile phone, comprising, *inter alia*, a second clock generator configured to generate a second clock signal with a frequency lower

than said first clock signal; a first counter configured to count said first clock signal; a second counter configured to count said second clock signal and to control said first counter to step and restart the counting operation of said first clock signal in response to said second clock signal.

No new matter has been added by the aforementioned amendments. For example, support therefor can be found at pages 16-18. New Claims 28-32 are patentably distinct from the cited references for the reasons set forth *infra*.

In the Outstanding Official Action, the Examiner rejected Claims 1-8 and 11-24 under 35 U.S.C. § 102(e) as being anticipated by Kohlschmidt, United States Patent No. 6,029,061.

Specifically, the Examiner avers that the reference teaches a mobile phone having a main clock, a main clock timer, a power saving means for stopping the main clock while counting a wait clock and for controlling the main counter on the basis of the counted wait clock as if the main counter always counts the main clock of the main clock signal.

Applicant submits that amended independent Claims 1, 11 and 21 are patentably distinct from Kohlschmidt. The claimed invention uses a single counter to count the number of cycles of the wait clock, whereas Kohlschmidt uses sleep registers to determine how long the terminal is in sleep mode. The prior art uses multiple registers and counters to count the cycles.

Specifically, the register CALSTM, in the prior art, holds a predetermined sleep time. During normal wake-up, this is the cycle count, however, if the mobile unit receives a wake-up command prior to the termination of this predetermined sleeptime, the register will not have the number of cycles counted. The prior art reference uses a different circuit element to count the actual sleep time during an early wake-up. Specifically, a shadow counter is used to represent the actual sleep time for the terminal. The register CALSTM is then reset with a value equal to the sum of the spin-up register and the reload register.

Furthermore, the claimed counter accounts for the reload period whereas; the prior art reference uses separate registers for accounting for the reload time. Accordingly, the reference fails to teach “a single counting means for counting said wait clocks of said wait clock signal for the time period”, as specifically claimed in Claim 1, and a “single main counter which carries out a counting operation of main clock”, as specifically recited in Claim 11 and counting main clocks of said main clock signal using a first single counting means stopping generation of said main clock signal for a time period, while counting wait clocks of a wait clock signal using a second single counting means, as recited in Claim 21.

Therefore, the reference does not teach, suggest or render obvious each and every limitation of the independent Claims 1, 11 and 21.

In addition to being patentably based upon their dependency from Claims 1 and 11, respectively, Claims 6 and 16 are further patentably

distinct from the cited reference for the following additional reasons. The term “ratio means”, as specifically recited in the claims and clock precision unit, as taught by the reference, are the same. Specifically, in Claim 6, the ratio means is used “for determining a frequency ratio of a frequency of said main clock signal to a frequency of said wait clock signal” and in Claim 16, the “clock precision unit holds a ratio of a frequency of said main clock to a frequency of said wait clock signal”. In fact, the Examiner stated that Claim 25 had allowable subject matter. Claim 25 is the corresponding method claim.

Similarly, in addition to being patentably based upon their dependency from Claims 1 and 11, respectively, Claims 7 and 8 are further patentably distinct from the cited reference for the following additional reasons. While the reference does not specify a battery, the inclusion of a battery will most likely not make the claim patentable over the cited reference, as a battery is probably inherently disclosed. Further, the reference teaches a control signal that accounts for a change in voltage and temperature. See, Col 3, lines 53-66. However, the reference fails to specify that this control signal be used to drive the ratio means. If fact, a similar method claim has been allowed (Claims 26-27).

In a described embodiment, the specification states that the frequencies of the main clock signal and the wait clock signal change in accordance with the temperature and the voltage. The ratio means modifies the ratio accordingly based upon a detection of a temperature or voltage change. Specifically, when a temperature detector or a

voltage detector incorporated in the mobile phone detects the change in temperature or voltage, a signal is transmitted to clock signal precision measuring unit 15, and the ratio means accounts for such a modification.

Claims 7-8 are directed to the modification or change of the ratio. Accordingly, Claims 7 and 8 are separately patentable over the cited prior art reference.

With respect to Claims 18-20, Applicant respectfully disagrees with the rejection and traverses with at least the following additional analysis.

In a disclosed embodiment of the invention, the specification describes that the mobile phone is composed of a first CPU 10a, a first main clock generator 11a, a wait clock generator 12, a wait timer 13, a first main counter 14a, a first clock signal precision measuring unit 15a, a second CPU 10b, a second main clock generator 11b, a second main counter 14b, and a second clock signal precision measuring unit 15b. The first CPU 10a, the first main clock generator 11a, the first wait timer 13a, the first main counter 14a and the first clock signal precision measuring unit 15a are mutually connected by a first CPU bus 20a. Also, the second CPU 10b, the second main clock generator 11b, the second wait timer 13b, the second main counter 14b and the second clock signal precision measuring unit 15b are mutually connected by a second CPU bus 20b..

The specification discloses that the mobile phone includes two main clock systems. More specifically, the mobile phone includes a

first CPU 10a, the first main clock generator 11a, the wait clock generator 12, the wait timer 13, the first main counter 14a and the first clock signal precision measuring unit 15a of a first system section correspond to the CPU 10, the main clock generator 11, the wait clock generator 12, the wait timer 13, the main counter 14 and the clock signal precision measuring unit 15 in the first embodiment, respectively. Also, the phone includes a replica set of these elements: the second CPU 10b, the second main clock generator 11b, the wait clock generator 12, the wait timer 13, the second main counter 14b and the second clock signal precision measuring unit 15b of a second system section. The replica set and the first set function in the same manner. The two main clock systems can have two different frequencies.

Kohlschmidt does not teach two main clock systems, as specifically recited in Claim 18 or that the "wait timer is shared by said two main clock systems." The reference neither teaches nor suggests a desire to have two different main clocks. Therefore, the reference does not teach, suggest or render obvious each and every limitation of Claims 18-20.

Applicant respectfully submits that Claims 2-4, 6, 12-17, 22-24 are at least patentably distinct from the cited reference based upon their dependency from independent Claims 1, 11 and 21.

Kohlschmidt fails to teach a first single counter configured to count said first clock signal; a second single counter configured to count said second clock signal and to control said first counter to step

and restart the counting operation of said first clock signal in response to said second clock signal, as specifically recited in new Claim 28.

As stated *supra*, the prior art reference uses multiple registers and counters to count the cycles, whereas the claimed invention only uses a single counting element for counting the respective cycles.

Accordingly, Claim 28 is patentably distinct from the cited reference. Additionally, Claim 30 is further distinct from the cited reference because the reference fails to teach “processing unit configured to set a new count value, at a time when said first counter is restarted to said first counter based on a counter value of said second counter of said second clock signal and a count value of said first counter at a time when said first counter is stopped”, as recited in the claim. Therefore, Claim 30 is separately patentable.

Claims 29, 31 and 32 are at least patentably distinct from the cited reference based upon their dependency from Claim 28.

For all the foregoing reasons, the Applicant respectfully requests the Examiner to withdraw the rejections of Claims 1-24 pursuant to 35 U.S.C. § 102(e).

In conclusion, the Applicant believes that the above-identified application is in condition for allowance and henceforth respectfully solicits the Examiner to allow the application. If the Examiner believes a telephone conference might expedite the allowance

of this application, the Applicant respectfully requests that the Examiner call the undersigned, Applicant's attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,


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